

METHOD AND SYSTEM FOR  
MULTI-SENSOR SIGNAL DETECTION

ABSTRACT OF THE DISCLOSURE

A method and apparatus for defect detection through color-filter channels is provided. The present invention includes an electronic scanner or similar device having a multilinear imager, a computer, and software that implements all the color channels of the multilinear imager to collect IR information in order to detect defects on a physical medium. The present invention implements methods to increase IR gathering speed and/or increase the clarity of captured images on multilinear-imager devices. These improvements are accomplished by capturing infrared (IR) light through each color-filter channel such that image defects such as dust and scratches are removed. In one embodiment of the present invention, IR information is collected from each color channel at different scan positions in either a one-pass or a two-pass scanning system. In another embodiment of the present invention, each RGB color channel is used to collect both image and detect information at every scan line, again, either a one-pass or a two-pass scanning system.